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Monthly Statistical Report

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NOVEMBER 1991

SUMMARY

Total deliveries, even against the weak levels of a year earlier, failed to exceed the year-ago figure this November. Following year-to-year increases of 1 to 2 percent in the prior two months—admittedly more because of depressed levels last year than of any real strength in this year's deliveries—this November's deliveries looked unusually feeble.

Gasoline deliveries dropped more than 3 percent versus a year ago, even though other indicators suggest that consumption would have been roughly flat. Distillate deliveries fell by slightly more, despite weather colder than a year ago in major heating oil consuming regions and indications of increased transportation use. Meanwhile, deliveries of kerosine jet fuel, though less out of line with recent trends, were still only flat. Residual fuel oil deliveries, rising by a seemingly large 26 percent against depressed deliveries a year ago, in fact still fell short of November deliveries the year before that. Although the hesitant economic recovery has played a role in the weakness so far this year in deliveries, November's were still below recent trends—trends which would have suggested a year-to-year increase for the month similar to the 1 to 2 percent of the prior two months.

For the third time in four months, November's domestic crude oil production fell, year to year. With the month's 1.6 percent drop, the net result of a 2.4 percent decrease for the lower 48 and a 1 percent increase for Alaska, evidence continues to accumulate that domestic production's decline trend may be resuming after a temporary interruption during the past year or so.

Total petroleum imports rose versus last November, but the 7.6 percent increase was mainly a reflection of depressed imports a year ago in the midst of the Persian Gulf crisis. Product imports surpassed 2 million B/D for the first time since May. This was principally because of higher imports of residual fuel oil, which nearly doubled from 330 thousand B/D in March to over 600 thousand B/D in November.

Distillate's weak deliveries, combined with strong refinery output, led to a 5 million barrel increase in distillate stocks during the month. At 140 million barrels, distillate inventories ended November at the highest level for that month in five years. Gasoline stocks rose 4 million barrels, but crude and product inventories as a whole were nearly unchanged compared with October's month-end level.

PRODUCT SUPPLIED[1]

Gasoline

DOWN OVER 3 PERCENT FROM ALREADY-LOW YEAR-AGO LEVELS.

Following two months of year-to-year increases, gasoline deliveries fell precipitously in November. The September and October increases had been in part the result of depressed year-ago levels, so November's decline of 3.2 percent against similarly low levels of a year ago was evidence of a substantial dropoff from the pattern of previous months' deliveries.

While there have been suspicions that some of the prior-month's figures were high compared to actual consumption, November's deliveries were below what might have been expected based on other consumption indicators. However, averaging the fluctuating levels of gasoline deliveries of the past three months yields roughly flat performance versus a year ago.

This is roughly in line with what would be suggested by recent data on travel. Year-to-year increases in miles traveled, though strengthening in recent months, still only mustered a 1.8 percent increase for September, the latest data available. If the trend continued into November, more or less flat consumption versus a year ago is implied.

Distillates

DELIVERIES OFF FOR MONTH DESPITE COLDER WEATHER.

Despite apparent increases in underlying heating and transportation demand, deliveries of distillate fuel oil during November fell 3.5 percent, year to year. Seasonally-adjusted, deliveries during the month were down about 3 percent from their average over September and October. It is believed that November's contrast between growth in deliveries and growth in estimated consumption of 3-4 percent results from smaller builds (or larger draws on) non-primary inventories versus last year, perhaps indicating marketer and consumer expectations of falling prices.

Weather during November was colder than last year throughout most of the country. In New England and the Mid-Atlantic

	API ESTIMATES NOVEMBER		YEAR-TO-DATE	
	Million B/D	Percent Change	Million B/D	Percent Change
Total domestic deliveries	16.7	–	16.6	(2.3)
Crude production[2]	7.3	(1.6)	7.4	0.3
Total imports[3]	7.5	7.6	7.6	(6.7)
Stocks (million bbl)[4]	1,069	0.1	na	na

states, which together account for about two-thirds of nationwide heating fuel demand, the number of heating degree days rose by nearly 10 percent, year to year. Nationwide, weather is estimated to have accounted for perhaps 80-90 thousand B/D of additional heating fuel consumption versus last year.

In transportation markets, while underlying railroad demand appears to have been roughly flat for the month, highway demand is estimated to have been up slightly. Seasonally-adjusted, highway tonnage has generally been increasing since June. In the most recent months, reported trucking tonnage was up by about two percent, year to year, adding perhaps 20-30 thousand B/D to consumption.

Differences in non-primary inventory patterns this year versus last offer one explanation for the divergence between consumption and delivery growth. Weather in the Northeast, though colder than a year ago, remained moderately warmer than the long-run November average. Coupled with moderate weather in Europe and falling crude prices, this no doubt influenced expectations of future distillate prices, and perhaps encouraged some wholesalers and large consumers of diesel and heating fuels to put off purchases.

Residual Fuel Oil

26 PERCENT RISE IS LESS THAN IT APPEARS.

Residual fuel deliveries were up more than 25 percent, year to year, in November—the sharpest such increase in over five years. While underlying demand no doubt benefitted from colder weather versus last November and the resulting increase in electricity generation, the year-to-year growth resulted more from depressed deliveries a year ago than from particularly strong deliveries this year. Despite the year-to-year surge, residual fuel supplied has remained roughly flat, on a seasonally-adjusted basis, over the past four months—and versus levels for the same period two years ago, it was actually down slightly.

Last November, mild weather and higher prices encouraged fuel switching and bulk-power purchases from other suppliers by utilities ordinarily relying on residual fuel. As a result, consumption of resid by utilities fell to the lowest level for any month in over 20 years. This November, more competitive prices and more seasonal weather are thought to have prompted increased resid-fired generation. At month's end, spot resid prices were about 40 percent lower than last year, while gas prices were down by a lesser 20 percent.

Lower temperatures throughout the nation are believed to have facilitated the year-to-year increase in resid demand both by limiting the availability of natural gas to electric utilities, and by reducing surplus electric power available for bulk transfers. The colder weather helped push power generation in the Northeast up 2-3 percent, year-to-year. Perhaps equally noteworthy during the month was weather in Florida, where heating degree days more than tripled from levels last November. Florida utilities, which accounted for nearly a fifth of nationwide utility resid consumption last winter, are dependent on resid for meeting surge winter generation needs. Amid the record cold weather of December 1989, for instance, Florida utilities satisfied over 70 percent of incremental generation needs (versus November) via resid-fired generation. This compares with slightly less than 60 percent in the Northeast and only 10 percent in the rest of the nation.

Kerosine Jet Fuel

TRAVEL PICKING UP IN RECENT MONTHS.

Paralleling the pattern seen in air travel, jet kerosine deliveries continued to pick up in November, on a seasonally-adjusted basis, from lows this past spring. For the month, deliveries were essentially unchanged, year to year, after having declined 5 percent in the year's first half and 2 percent over the previous three months.

While many of the major U.S. air carriers had been reporting year-to-year increases in passenger travel since early in the summer, much of this growth came either at the expense of smaller carriers, as a result of route transfers, or as a result of passenger migration from the now-defunct Eastern airlines. Collectively, the industry reported year-to-year declines in miles flown during each of the year's first ten months. Nonetheless, on a seasonally-adjusted basis, traffic continued to pick up between May and October, and early indications for November suggest that miles flown (and consequently underlying jet fuel demand) perhaps matched year-ago levels.

With Midway Airlines ceasing operations in November and Pan-Am following suit in early December, an evaluation of how airline exits tend to affect industry operations may be in order. When an air carrier leaves a market, if its would-be passengers are able to fly other airlines, the shutdown need not have any effect on passenger travel. To the extent, however, that other carriers are able to absorb some portion of the influx by filling otherwise empty seats (i.e. increasing load factors), miles flown (and consequently, underlying jet fuel demand) tends to be negatively impacted.

Eastern's shutdown this past January was coincident with the start of the Persian Gulf War, making it difficult to provide concrete evidence of this "load factor" effect. Initially, a significant drop in overall travel demand caused by the war more than compensated for this effect. However, since the first quarter, load factors have typically been 1-2 points above year ago levels, offering some evidence that other airlines may have been able to satisfy would-be Eastern passengers by filling more empty seats. What inferences may be drawn for Midway and Pan-Am remain to be seen, but together they accounted for about five percent of the U.S. market—about the same share Eastern occupied at the time that airline ceased flight operations.

Other Oils

DELIVERIES RISE MODERATELY.

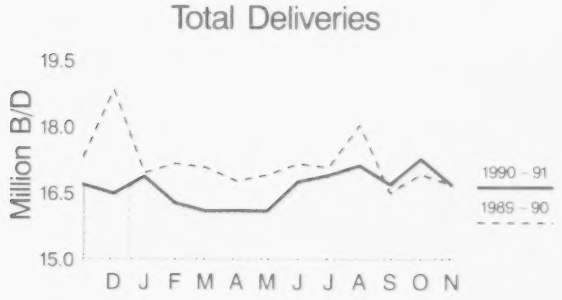
Deliveries of "other oils" rose a moderate 1.1 percent for November, roughly in line with the estimated underlying trend in year-to-year consumption changes. LPG demand—which accounts for roughly 40 percent of the "other oils" category—was bolstered by colder-than-normal weather, particularly in the Midwest, a major residential/commercial market for propane. However, in petrochemical feedstock markets, demand for LPGs is believed to have been relatively weak because of unattractive prices in relation to heavier feedstocks.

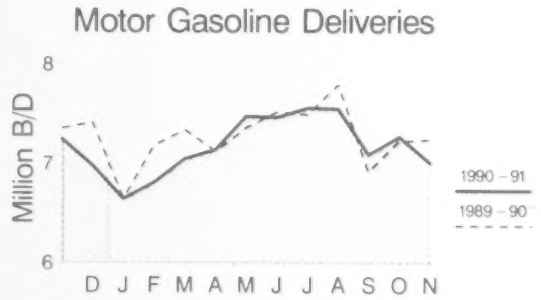
The recent weakness in LPG chemical usage contrasts with last year, when chemical use of LPGs rebounded from its dropoff in 1989. According to the most recent edition of *Sales of Natural Gas Liquids and Liquefied Refinery Gases*, recently released by API in coordination with the National Propane Gas Association

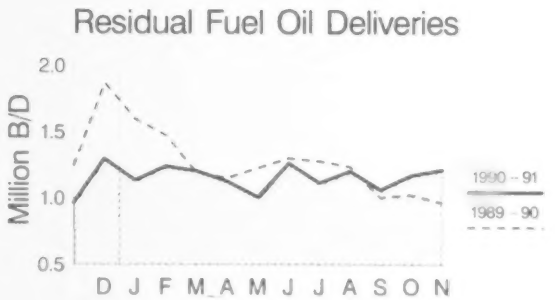
and the Gas Processors Association, nearly half of LPGs (principally ethane and propane) go to chemical uses—and most of that in Gulf Coast states.

Gasoline blending, the second largest end-use category for LPGs, dropped for the third straight year in a reflection of the effects of stricter Federal and state vapor pressure requirements on the blending of butanes and heavier components. Not surprisingly, major refining states Texas and Louisiana alone accounted for more than half of all blending use.

Meanwhile, residential/commercial usage (essentially propane) has risen by a quarter since 1984, with more than 70 percent of usage occurring in the Midwest and on the East Coast.







SUPPLY [1/]

Production

ANOTHER DECLINE FOR CRUDE OUTPUT. Led by a 2.4 percent year-to-year decline in the lower 48, U.S. crude production fell 1.6 percent, or 121 thousand B/D during November. With lower 48 production down for the third time in four months, evidence continues to build that the ongoing production decline, temporarily abating in the 12 months following the Iraqi invasion, has resumed. And while Alaskan output was up 1 percent, year to year, during the month, such growth represents a continued moderation from the 4.2 percent seen in the year's first half.

The upstream story continues to be little changed from recent months. Seismic activity, drilling permits, well drilling and well servicing all continue to be down at double digit rates, year to year. The most recent figures on seismic crew count are of particular interest, having fallen to the lowest level in over 50 years. While the number of rigs searching for oil rebounded modestly during November from lows in September, that number at month's end was still down 22 percent, year to year. With gas prices remaining depressed, and with crude prices dropping 3-4 dollars/barrel during the month, financial incentives for increases in either drilling or production have been limited.

Imports

PRODUCT IMPORTS REACH 2 MILLION B/D. November's total petroleum imports rose, year to year, for the fourth month in a row. The 7.6 percent increase, however, was against year-ago levels of 7 million B/D, which had been the lowest level for that month since 1987. November's imports, at 7.5 million B/D, were still less than the roughly 8 million B/D underlying trend in import requirements prior to the Persian Gulf crisis.

Product imports exceeded 2 million B/D for the first month since May, rising nearly 9 percent versus 7 percent for crude. Recovery of residual fuel oil imports from low levels a year ago to pre-crisis levels was the primary reason for the increase. Though demand has been relatively stable in recent months, residual fuel oil imports have continued to trend upwards as supply patterns for resid have shifted away from domestic refinery production. Since March's low point of 330 thousand B/D imports of resid have nearly doubled to over 600 thousand B/D for November. Imports of distillate and kerosine jet fuel have also been stronger in recent months compared with mid-summer lows.

Meanwhile, product exports, after jumping during the Persian Gulf crisis in response to crisis-related supply/demand shifts and other factors, have trended downwards more recently. The latest available Department of Energy data, for September, show an

average of 676 million B/D, compared with peak levels of over 1 million B/D over the December-February period.

Distillate exports, which had reached 300-400 thousand B/D during that period in response to stronger overseas demand and unusually warm weather domestically, declined to an average 150 thousand B/D in the second quarter. They slipped further, to 136 thousand B/D, in September. Kerosine jet fuel exports, which had at times reached 140-150 thousand B/D during the crisis, were down to 10 to 30 thousand B/D for more recent months.

Refinery Operations

RUNS SLIP BUT DISTILLATE RISES. Though input to distillation units slipped 0.9 percent from a year ago in November, output of all major products except kerosine jet fuel rose. The 8.2 percent drop for kerosine jet fuel was mainly a measure of the record levels reached during last year's fourth quarter in response to Desert Shield-related demand; this November's output, at 1.33 million B/D, was still the highest since February.

With continued emphasis on distillate production over gasoline, distillate output rose 5.4 percent versus 0.7 percent for gasoline. Distillate output reached 3.07 million B/D, the highest for November since 1985.

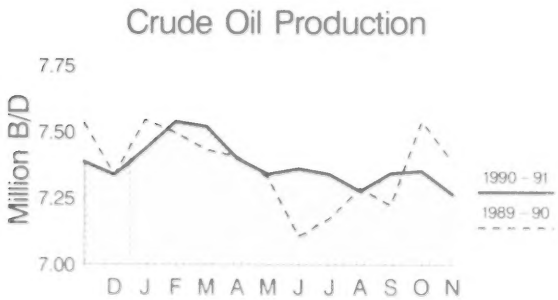
Utilization of operating capacity averaged about 86 percent for the month, down from 88 percent a year ago. On the basis of reported capacity, utilization for the month is calculated at 83.2 percent.

Inventories

GASOLINE, DISTILLATE STOCKS RISE. With both crude stocks and total inventories nearly unchanged during the month, the principal developments during November were in inventories of some of the major products. Weak deliveries, coupled with ready supplies from refineries, helped to raise distillate stocks by 5 million barrels to 140 million barrels—8 million barrels higher than a year ago and the highest November level in five years.

Gasoline inventories also rose, but by a slightly lesser 4 million barrels. Gasoline stocks ended the month at 208 million barrels, 8 million barrels lower than a year ago. Crude stocks held steady at 343 million barrels, while total inventories edged downwards by less than a million barrels to nearly match year-ago levels.

As for propane, inventories dropped slightly during November, according to Department of Energy figures. In the main heating-use regions, stocks continued to be near or above year-ago levels—East Coast stocks, at about 5 million barrels, were about the same as a year ago, while in the Midwest they were up a million barrels from last November to 21 million barrels. On the Gulf Coast, where propane's primary use as a petrochemical feedstock continued to languish because of more attractive prices for other feedstocks, the gap versus a year ago narrowed to 2 million barrels as stocks rose during the month to 26 million barrels.



1/ Total supply, i.e., production plus imports adjusted for net stock change is equal to total products supplied from primary storage. Total products supplied from primary storage less exports is equal to total domestic products supplied. Information contained in this report is derived from information published in the API Weekly Bulletin and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.

2/ Includes lease condensate.

3/ API data do not include crude oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR (according to the U.S. Department of Energy, the SPR held approximately 569 million barrels as of November 30, 1991).

ESTIMATED UNITED STATES PETROLEUM BALANCE
(Daily Average in Thousands of 42 Gallon barrels)

Products Supplied/Supply From Primary Storage	NOVEMBER			YEAR-TO-DATE		
	1991/1	1990/2	% Change	1991/3R	1990/2	% Change
Products Supplied:						
Total motor gasoline	7,010	7,241	(3.2)	7,191	7,259	(0.9)
Finished leaded motor gasoline/*	192	301	(36.2)	268	396	(32.3)
Finished unleaded motor gasoline/*	6,818	6,940	(1.8)	6,923	6,863	0.9
Naphtha-jet	168	208	(19.2)	175	184	(4.9)
Kerosine-jet	1,367	1,369	(0.1)	1,301	1,337	(2.7)
Distillate fuel oil	2,987	3,094	(3.5)	2,922	3,039	(3.8)
Residual fuel oil	1,215	965	25.9	1,159	1,222	(5.2)
All other oils/4	4,199	4,153	1.1	4,142	4,138	0.1
Reclassified/5	-253	-335	(24.5)	-254	-145	75.2
Total domestic products supplied	16,693	16,695	0.0	16,636	17,034	(2.3)
Exports	812	1,085	(25.2)	969	826	17.3
Total products supplied	17,505	17,780	(1.5)	17,605	17,860	(1.4)
Supply:						
Domestic production:						
Crude oil/6	7,266	7,387	(1.6)	7,378	7,357	0.3
Natural gas liquids	1,643	1,690	(2.8)	1,644	1,555	5.7
Other supply/7	1,032	1,126	(8.3)	1,092	1,012	7.9
Total domestic supply	9,941	10,203	(2.6)	10,114	9,924	1.9
Imports:						
Crude oil, total/8	5,449	5,085	7.2	5,781	5,984	(3.4)
Canadian	774	645	20.0	740	636	16.4
Other	4,675	4,440	5.3	5,041	5,348	(5.7)
Products, total	2,088	1,918	8.9	1,813	2,151	(15.7)
Residual fuel oil	604	387	56.1	460	506	(9.1)
Other	1,484	1,531	(3.1)	1,353	1,645	(17.8)
Total imports	7,537	7,003	7.6	7,594	8,135	(6.7)
Total supply	17,478	17,206	1.6	17,708	18,059	(1.9)
Stock change, all oils	-27	-574	******	103	199	******
Refinery Operations						
Input to crude oil distillation units	13,073	13,187	(0.9)	13,528	13,670	(1.0)
Operable capacity	15,708	15,666	0.3	15,752	15,621	0.8
Refinery utilization (%)/9	83.2	84.2	(1.2)	85.9	87.5	(1.8)
Crude oil runs	12,883	12,953	(0.5)	13,289	13,474	(1.4)

Stocks (millions bbls.)	1991		1990/2	% Change from	
	Nov. 30/10	Oct. 31/10	Nov. 30	Previous month	Year Ago
Crude oil/8	343.0	342.9	338.7	0.0	1.3
Unfinished oils	107.9	108.7	108.7	(0.7)	(0.7)
Total motor gasoline/**	208.0	204.3	217.2	1.8	(4.2)
Finished leaded motor gasoline/*	5.5	5.8	9.8	(5.2)	(43.9)
Finished unleaded motor gasoline/*	166.7	161.4	167.1	3.3	(0.2)
Naphtha-jet	4.7	5.1	5.8	(7.8)	(19.0)
Kerosine-jet	44.2	43.6	44.7	1.4	(1.1)
Distillate fuel oil	140.4	135.6	132.4	3.5	6.0
Residual fuel oil	49.2	46.6	50.1	5.6	(1.8)
All other oils	171.9	183.3R	170.2	(6.2)	1.0
Total all oils	1,069.3	1,070.1R	1,067.8	(0.1)	0.1

/1 Based on API estimated data converted to a monthly basis.
/2 Source: U.S. Department of Energy.
/3 Jan-Sep, DOE; Oct-Nov, API.
/4 Includes crude losses.
/5 Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from the total domestic products supplied.
/6 API estimate; includes lease condensate.
/7 Includes Unaccounted-for crude oil, which will reflect withdrawls from the SPR when they occur, processing gain, field production of other hydrocarbons and alcohol.
/8 Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
/9 Represents "Input to crude oil distillation units" as a percent of "Operable capacity".
/10 Derived by interpolating API weekly stocks data.
/R Revised.
/* Included in motor gasoline.
/** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.